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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,531	09/11/2001	Yvan Strauven	U.MINIERE-03	4239
42253	7590	01/19/2007		
MISHRILAL JAIN 11620 MASTERS RUN ELLCOTT CITY, MD 21042			EXAMINER CREPEAU, JONATHAN	
			ART UNIT	PAPER NUMBER
			1745	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/936,531

Applicant(s)

STRAUVEN ET AL.

Examiner

Jonathan S. Crepeau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office action addresses claims 1-17. Applicant's arguments filed on November 14, 2006 are persuasive and the rejection over the JP '379 reference is withdrawn. However, claims 1-17 are newly rejected under 35 USC 103 herein. As such, this action is non-final.

Claim Rejections - 35 USC § 103

2. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 94/19502 in view of Suzuki (U.S. Patent 5,917,113).

Regarding claim 5, WO '502 is directed to an alkaline battery comprising an anode, cathode, and electrolyte (see claim 23 of the reference). Regarding claim 1, the anode comprises a zinc alloy having a composition which anticipates each of the claimed compositions (a), (b), and (c). For example, the alloy disclosed at page 5, line 30, which contains 70 ppm (0.007 wt%) Al and 250 ppm (0.025 wt%) Bi, anticipates alloy (c) of instant claim 1. The alloy disclosed at page 6, line 12 (0.007 wt% Al, 0.025 wt% In) anticipates alloy (a) of instant claim 1. The alloy disclosed at page 6, line 21 (0.003 wt% Al, 0.025 wt% In, 0.025 wt% Bi) anticipates alloy (b) of instant claims 1 and 2. Regarding claim 6, the powder comprises metal cemented out of the electrolyte (see claim 24 of the reference). Regarding claim 1, the powder can be made by a centrifugal atomization process (see page 3, line 30).

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WO '502 does not expressly teach that the centrifugal atomization process is carried out in an atmosphere with a relatively low (i.e., <4vol%) oxygen content, as recited in claims 1, 3, 4, 7-11 and 15-17.

Suzuki is directed to a process for producing spherical metal particles. The process involves centrifugally atomizing molten metal in an atmosphere containing 3-600 ppm oxygen (see abstract).

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the disclosure of Suzuki would motivate the artisan to conduct the centrifugal atomization of WO '502 in an atmosphere containing a relatively low (i.e., 3-600 ppm) amount of oxygen. In column 4, line 43, Suzuki teaches that "as has been discussed above in detail, the production process of the present invention permits mass-production of fluent, spherical metal particles having a smooth surface, in low cost and excellent in dispersibility in a dispersing medium." Accordingly, the artisan would be motivated to conduct the centrifugal atomization of WO '502 in an atmosphere containing a relatively low (i.e., 3-600 ppm) amount of oxygen. Although the parts per million unit of the Suzuki reference is determined on a mass basis (see abstract), this is still believed to render obvious the claimed volume percentages of oxygen content (less than 4% as recited in claim 1, or 0.2-3.5% as recited in claim 3).

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Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299.

The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The phone number for the organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jonathan Crepeau
Primary Examiner
Art Unit 1745
January 11, 2007